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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/682,224	10/08/2003	Motokazu Kikuchi	06920/100J055-US1	8102

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EXAMINER	
WEIER, ANTHONY J	

ART UNIT	PAPER NUMBER
1761	

DATE MAILED: 11/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/682,224	KIKUCHI ET AL.	
	Examiner	Art Unit	
	Anthony Weier	1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 September 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6 and 9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2-49556 taken together with Hester et al.

Any one of JP 01117755 (see Abstract), Matsuura (Examples), and JP 2-49556 (e.g. translation, page 3) disclose a continuous process wherein soybeans are ground into a slurry and heated to such temperature as to inherently induce denaturing wherein during said heating step, the slurry is deaerated (which removes air bubbles from same) and wherein said heating comprises a first and second heating step wherein the second heating step occurs after deaeration. In addition, JP 01117755 (e.g. 90 C), Matsuura (e.g. 80 C), and JP 2-49556 (e.g. 80 C) disclose heating in the range as claimed during the deaeration.

JP 2-49556 further discloses flowing said soybean slurry through connected pipes, curved and straight. JP 2-49556 is silent regarding the use of connected alternating large and small pipes. However, this concept is known in the art for providing turbulence to the material carried as taught, for example, by Hester et al (see col. 24, lines 41-50). It would have been obvious to one having ordinary skill in the art

at the time of the invention to have employed same as a way to provide a more uniform product through inherent mixing by said turbulence.

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over any one of JP 01117755, Matsuura, and JP 2-49556.

The instant claims call for said soybean slurry to be depressurized such that the temperature of the soybean slurry decreases by at least 3 C or more. Although JP 01117755, Matsuura, and JP 2-49556 are silent concerning the amount of temperature drop during the deaeration step, it is considered inherent that some temperature drop would occur due to pressure reduction. As for the amount of temperature drop, same is considered a result effective variable and well within the purview of a skilled artisan at the time of the invention. Absent a showing of unexpected results, it would have been obvious to one having ordinary skill in the art at the time of the invention to have attained same as a matter of preference.

4. Claims 1-5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuura taken together with Hester et al.

Matsuura further discloses injection of steam directly into the soybean slurry as called for in claim 9 (e.g. Example 2). Matsuura is silent regarding the use of connected alternating large and small pipes and wherein the larger pipe is arranged in a straight line and the smaller pipe is bent in a turning configuration. The concept of using large and small pipes is known in the art for providing turbulence to the material carried as taught, for example, by Hester et al (see col. 24, lines 41-50). It would have been obvious to one having ordinary skill in the art at the time of the invention to have

employed same as a way to provide a more uniform product through inherent mixing by said turbulence. As for the particular arrangement of the pipes being straight or bent, it is not seen where same would provide a patentable distinction with regard to the method. It would have been further obvious to have arrived at same as a matter of preference depending on, for example, the space constraints for the apparatus employed.

Response to Arguments

5. Applicant's arguments filed 9/13/05 have been fully considered but they are not persuasive.

Applicant argues that Hester et al is related to a different technical field and not reasonable to combine with JP 02-49556. Examiner disagrees. Hester et al relates to a heating a material under static-mixing conditions wherein heating occurs within tube devices that are straight and curved and having different diameters to induce turbulence and mixing within said material. JP 02-49556 provides a process of heating material within tubes that are straight and curved but do not set forth difference in tube diameter. It should be noted that the static-mixing concept recited in Hester et al teaches the advantages of increasing mixing at lower flow rates, reduction in the amount of tubing required, and increased heat transfer with respect to heat treatment of a material (see col. 24, lines 34-63). One skilled in the art at the time of the invention would look to fields relating to improvements in mixing and heat transfer including the field related to Hester et al which also involves mixing and heat treatment issues. It would have been obvious to one having ordinary skill in the art at the time of the invention to have

employed such concept in the method of JP 02-49556 for the advantages described in Hester et al.

Applicant argues that Matsuura does not disclose a step of deaeration. However, in Example 2, Matsuura discloses deaeration of a soybean slurry during processing which it is clearly expected would induce heating of the slurry (high pressure homogenization).

Applicant further argues that Matsuura discloses the addition of a sterilized coagulant, a step not required in the instant claims. However, the recitation of the instant claims is broad enough to compass these and other additional processing steps due to the use of the open-language "comprised" in setting forth the steps of the instant invention.

Applicant further argues Hester et al as though same were applied alone with respect to the instant claims. However, JP 02-49556 and Matsuura were applied as teaching the bulk of the instant invention; Hester et al was merely provided the concept as set forth above and the motivation for employing same in the primary references.

All other arguments have been addressed in view of the rejections set forth above.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Weier whose telephone number is 571-272-1409. The examiner can normally be reached on Monday-Thursday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anthony Weier
Primary Examiner
Art Unit 1761

11/22/05

Anthony Weier
November 22, 2005